

said sensing means including multiple independent blanking switches corresponding to independent electrodes, wherein a signal associated with the evoked response is sensed between at least one of said atrial electrodes and said ventricular electrodes; and

- Q1 (e) afterpotential attenuation means for attenuating afterpotentials which result due to the application of the pacing stimulus to the heart by said cardiac pacing system, said afterpotential attenuation means being electrically coupled to said pacing means.

Sub E2 A2  
3. (Once Amended) The cardiac pacing system as recited in claim 2, further including an indifferent electrode and a can that contains the pacing and sensing means, said indifferent electrode is positioned on the can, wherein the signal associated with the evoked response is sensed between the atrial tip electrode and [an] the indifferent electrode [positioned on a can of the cardiac pacer and electrically coupled to the cardiac pacer].

Sub E2 A3  
5. (Once Amended) The cardiac pacing system as recited in claim 2, further including an indifferent electrode and a can that contains the pacing and sensing means, said indifferent electrode is positioned on the can, wherein the signal associated with the evoked response is sensed between the atrial ring electrode and [an] the indifferent electrode [positioned on a can of the cardiac pacer and electrically coupled to the cardiac pacer].

6. (Once Amended) The cardiac pacing system as recited in claim 2, further including an indifferent electrode and a can that contains the pacing and sensing means, said indifferent electrode is positioned on the can, wherein the signal associated with the evoked response is sensed between the ventricular tip electrode and [an] the indifferent electrode [positioned on a can of the cardiac pacer and electrically coupled to the cardiac pacer].

7. (Once Amended) The cardiac pacing system as recited in claim 2, further including an indifferent electrode and a can that contains the pacing and sensing means, said indifferent electrode

Sub E2 Q3  
is positioned on the can, wherein the signal associated with the evoked response is sensed between the ventricular ring electrode and [an] the indifferent electrode positioned on a can of the cardiac pacer and electrically coupled to the cardiac pacer.

A4 Sub E2  
11. (Once Amended) The cardiac pacing system as recited in claim 2, further including an electrically conductive housing that contains the pacing and sensing means, wherein the signal associated with the evoked response is sensed between the atrial tip electrode and [an] the electrically conductive housing of the cardiac pacing system.

12. (Once Amended) The cardiac pacing system as recited in claim 2, further including an electrically conductive housing that contains the pacing and sensing means, wherein the signal associated with the evoked response is sensed between the atrial ring electrode and [an] the electrically conductive housing of the cardiac pacing system.

A5 Sub E3  
14. (Once Amended) The cardiac pacing system as recited in claim 2, further including an electrically conductive housing that contains the pacing and sensing means, wherein the signal associated with the evoked response is sensed between the ventricular ring electrode and [an] the electrically conductive housing of the cardiac pacing system.

15. (Once Amended) The cardiac pacing system as recited in claim 2, further including an electrically conductive housing that contains the pacing and sensing means, wherein the signal associated with the evoked response is sensed between the ventricular tip electrode and [an] the electrically conductive housing of the cardiac pacing system.

Sub A6  
19. (New Claim) A cardiac pacing system for use with unipolar or bipolar atrial and ventricular pacing and sensing leads, said cardiac pacing system including:

- (a) an atrial lead having atrial electrodes electrically coupled thereto;
- (b) a ventricular lead having ventricular electrodes electrically coupled thereto;

- (c) a pacing circuit that provides a pacing stimulus to at least one of an atrium or ventricle of a heart, said pacing circuit electrically coupled to at least one of said atrial lead and said ventricular lead;
- (d) a sensing circuit that senses a response evoked by the pacing stimulus, said sensing circuit electrically coupled to at least one of said atrial lead and said ventricular lead, said sensing circuit including multiple independent blanking switches corresponding to independent electrodes, wherein a signal associated with the evoked response is sensed between at least one of said atrial electrodes and said ventricular electrodes; and
- (e) capacitors that together attenuate afterpotentials which result due to the application of the pacing stimulus to the heart by said cardiac pacing system, said capacitors being electrically coupled to said pacing circuit.

Ab 20. (New Claim) The cardiac pacing system as recited in claim 19, wherein said atrial lead includes an atrial tip electrode and an atrial ring electrode, and said ventricular lead includes a ventricular tip electrode and a ventricular ring electrode.

Solve 21. (New Claim) The cardiac pacing system as recited in claim 20, further including an indifferent electrode and a can that contains the pacing circuit and sensing circuit, said indifferent electrode is positioned on the can, wherein the signal associated with the evoked response is sensed between the atrial tip electrode and the indifferent electrode.

22. (New Claim) The cardiac pacing system as recited in claim 20, wherein the signal associated with the evoked response is sensed between the ventricular ring electrode and the ventricular tip electrode.

Sc 23. (New Claim) The cardiac pacing system as recited in claim 20, further including an indifferent electrode and a can that contains the pacing and sensing circuit, said indifferent electrode

is positioned on the can, wherein the signal associated with the evoked response is sensed between the atrial ring electrode and the indifferent electrode.

24. (New Claim) The cardiac pacing system as recited in claim 20, further including an indifferent electrode and a can that contains the pacing circuit and sensing circuit, said indifferent electrode is positioned on the can, wherein the signal associated with the evoked response is sensed between the ventricular tip electrode and the indifferent electrode.

25. (New Claim) The cardiac pacing system as recited in claim 20, further including an indifferent electrode and a can that contains the pacing circuit and sensing circuit, said indifferent electrode is positioned on the can, wherein the signal associated with the evoked response is sensed between the ventricular ring electrode and the indifferent electrode.

26. (New Claim) The cardiac pacing system as recited in claim 20, wherein the signal associated with the evoked response is sensed between the atrial ring electrode and one of the ventricular electrodes.

27. (New Claim) The cardiac pacing system as recited in claim 20, wherein the signal associated with the evoked response is sensed between the atrial tip electrode and one of the ventricular electrodes.

28. (New Claim) The cardiac pacing system as recited in claim 20, wherein the signal associated with the evoked response is sensed between the ventricular ring electrode and the atrial tip electrode.

29. (New Claim) The cardiac pacing system as recited in claim 20, further including an electrically conductive housing that contains the pacing circuit and sensing circuit, wherein the signal associated with the evoked response is sensed between the atrial tip electrode and the

electrically conductive housing of the cardiac pacing system.

c 30. (New Claim) The cardiac pacing system as recited in claim 20, further including an electrically conductive housing that contains the pacing and sensing <sup>circuit</sup> means, wherein the signal associated with the evoked response is sensed between the atrial ring electrode and the electrically conductive housing of the cardiac pacing system.

Sub E5 31. (New Claim) The cardiac pacing system as recited in claim 20, wherein the signal associated with the evoked response is sensed between the atrial ring electrode and ventricular tip electrode.

a6 32. (New Claim) The cardiac pacing system as recited in claim 20, further including an electrically conductive housing that contains the pacing circuit and sensing circuit, wherein the signal associated with the evoked response is sensed between the ventricular ring electrode and the electrically conductive housing of the cardiac pacing system.

33. (New Claim) The cardiac pacing system as recited in claim 20, further including an electrically conductive housing that contains the pacing circuit and sensing circuit, wherein the signal associated with the evoked response is sensed between the ventricular tip electrode and the electrically conductive housing of the cardiac pacing system.

34. (New Claim) The cardiac pacing system as recited in claim 19, wherein said capacitors includes a first coupling capacitor that attenuates afterpotential, operatively coupled to a second coupling capacitor that blocks DC components, and also includes switches for selectively coupling said second coupling capacitor in series with said first coupling capacitor so as to reduce the effective capacitance of said second capacitor.

35. (New Claim) The cardiac pacing system as recited in claim 34, wherein said first